

GEORGIA INSTITUTE OF TECHNOLOGY
OFFICE OF CONTRACT ADMINISTRATION
SPONSORED PROJECT INITIATION

628

Date: 7/25/78

Project Title: Studies on Fatty ACYL CoA Dehydrogenase and ETF

Project No: G-33-K01

Project Director: Dr. Carole L. Hall

Sponsor: DHEW/PHS/NIH - National Institute of General Medical Sciences;
Bethesda, MD 20014

Agreement Period: From 7/1/78 Until 6/30/79 (01 Year)

Type Agreement: Grant No. 1 R01 GM25494-01

Amount: \$67,045 New PHS Funds (G-33-K01)
5,287 GIT Contribution (G-33-327)
\$72,332 Total

Reports Required: Annual Progress Reports with Continuation Applications
Terminal Progress Report upon Grant Expiration

Sponsor Contact Person (s):

Technical Matters

John C. Dalton, PH.D. (Dr. Eugene J. Oliver)
Deputy Associate Director for Program
Activities
National Institute of General Medical Sciences
Bethesda, MD 20014

Phone: 301-496-7518

Contractual Matters

(thru OCA)

Ms. Evelyn W. Carlin
Grants Management Officer
Office of Associate Director
for Program Activities
National Institute of General
Medical Sciences
Bethesda, MD 20014

Defense Priority Rating: None

Assigned to: Chemistry (School/Laboratory)

COPIES TO:

Project Director
Division Chief (EES)
School/Laboratory Director
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EES Reports & Procedures
Project File (OCA)
Project Code (GTRI)
Other _____

GEORGIA INSTITUTE OF TECHNOLOGY
OFFICE OF CONTRACT ADMINISTRATION
SPONSORED PROJECT TERMINATION

Date: 6/19/79

Project Title: *Studies on Fatty ACYL COA Dehydrogenase and ETF*

Project No: *G-33-KO1*

Project Director: *Dr. Carole L. Hall*

Sponsor: *DHEW/PHS/NIH - National Institute of General Medical Sciences*

Effective Termination Date: 6/30/79 (End of 01 year)

Clearance of Accounting Charges: 6/30/79

Grant/Contract Closeout Actions Remaining:

TERMINATED

- ☐ Final Invoice and Closing Documents
- ☐ Final Fiscal Report
- ☐ Final Report of Inventions
- ☐ Govt. Property Inventory & Related Certificate
- ☐ Classified Material Certificate
- ☒ Other Annual Report of Expenditures due by 9/30/79.

NOTE: Follow-on project (02 Year) is G-33-KO2.

Assigned to: Chemistry (School/Laboratory)

COPIES TO:

Project Director
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Project Code (GTRI)
Other _____

G-33-K01

APPLICANT: REPEAT GRANT NUMBER SHOWN ON PAGE 1 →		GRANT NUMBER	
SECTION IV—SUMMARY PROGRESS REPORT		GM25494-02	
PRINCIPAL INVESTIGATOR OR PROGRAM DIRECTOR (Last, First, Initial)		PERIOD COVERED BY THIS REPORT	
Hall, Carol L.		FROM	THROUGH
NAME OF ORGANIZATION			
School of Chemistry, Georgia Institute of Technology			
TITLE (Repeat title shown in Item 1 on first page)			

1. List publications: (a) published and not previously reported; (b) in press. Provide five reprints if not previously submitted.
2. List all additions and deletions in professional personnel and any changes in effort.
3. Progress Report. (See Instructions)

- 1(a). Carole L. Hall, Federation Proceedings (1979), Studies on Electron Transfer from Fatty Acyl CoA to General Acyl CoA Dehydrogenase and ETF, 38 639 (Abs.)
- (b). Carole L. Hall and J. E. Bell, "UV and Visible Spectroscopy," in Spectroscopy in Biochemistry, J.E. Bell, ed. CRC Uniscience, Boca Raton, Florida, in press.
- (c). Carole L. Hall. Abstract accepted for presentation at the XIth International Congress of Biochemistry in Toronto, Canada, July 8-14, 1979.
- (d). Carole L. Hall and J. David Lambeth, Manuscript in preparation. Electron Transfer from Fatty Acyl CoA to General Acyl CoA Dehydrogenase and ETF.

2. Professional Personnel

Additions: Teresa M. DeTar

Changes in Effort: Carole L. Hall taught at Georgia Tech during 1978-1979 and effort was reduced to 67%. Compensation was provided by Georgia Tech. No commitment to teach has been made for 1979-1980.

3. The long term goal is to elucidate the interaction of the two flavoproteins required in α, β -dehydrogenation of fatty acyl CoA's in β oxidation with each other, with the substrate and products of the dehydrogenation and with the rest of the β -oxidation enzymes, and to determine the mechanisms of the electron transfers involved and fate of product. This is being approached by rapid reaction and anaerobic titration techniques (utilizing the characteristic absorbance and fluorescences of those enzymes) displacement studies, and studies of catalytic activity in dye-complexed systems.

The aims of the research are:

(a) to determine if 2 e⁻ to 1 e⁻ transduction occurs on the dehydrogenase, between the two flavoproteins, on the ETF or at some other site (e.g., interaction with the electron transport chain).

(b) To probe the relationship between these flavoproteins and the rest of the β -oxidation enzymes as possible effectors of the dehydrogenation.

(c) To determine the redox properties of the two flavoproteins both separately and together.

(d) To probe the nature of the apparent oxidized acyl CoA complex (green) of the short chain enzyme by attempting to displace and replace the complexing agent and to probe the postulated effects of hypoglycemic agents.

(e) To identify two additional flavoproteins which have been isolated and interact with acyl CoA derivatives.

NAME AND ADDRESS OF GRANTEE INSTITUTION

TRANSACTION NO.

Georgia Institute of Technology
Atlanta, Georgia 30332

(08)R1GM25494A

INSTITUTIONAL ID NO.

6-33-K01

FROM 7/1/78 TO 6/30/79

PROJECT PERIOD

FROM 7/1/78 TO 6/30/81

☐ CHECK IF FINAL REPORT

1. Expenditures of DHEW Funds for this Reporting Period

a. Personnel	\$ 21,054.13	h. Alterations and renovations	
b. Consultant services		i. Other Retirement	2,069.60
c. Equipment	17,963.46		
d. Supplies	4,701.09	j. Total direct costs	46,404.47
e. Travel, domestic	616.19	k. Indirect costs:	
f. Travel, foreign		Rate 76 % <input checked="" type="checkbox"/> S&W <input type="checkbox"/> TDC	
g. Patient care costs		Base \$ 21,054.13	16,001.14
		l. TOTAL	\$ 62,405.61
2. Expenditures from Prior Periods (previously reported)		-0-	
3. Cumulative Expenditures		62,405.61	
4. Total Amount Awarded - Cumulatively		67,045.00	
5. Unexpended Balance (Item 4 less Item 3)		4,639.39	
6. Unliquidated Obligations		-	
7. Unobligated Balance (Item 5 less Item 6)		-	
8.a. Cost Sharing Information - Grantee Contribution This Period		5,287.45	
b. % of Total Project Costs (Item 8a divided by total of Items 1 and 8a)		% 7.81	
9.a. Interest/Income (enclose check)			
b. Other Refundable Income (enclose check)			

10. Remarks

I hereby certify that this report is true and correct to the best of my knowledge, and that all expenditures reported herein have been made in accordance with appropriate grant policies and for the purposes set forth in the application and award documents.

Carole L. Hall

Dr. C.L. Hall, Res. Sci. 12/3/79 Date

David V. Welch

12/11/79

SIGNATURE OF INSTITUTION OFFICER

DATE

David V. Welch, Manager, Grants & Contracts Acctg.

REPORT OF RESEARCH GRANT
EXPENDITURES